IN THE CLAIMS

The pending claims are as follows:

1. (Previously Presented) A multi-stack optical data storage medium for recording and reading using a focused radiation beam entering through an entrance face of the medium during recording and reading, comprising:

a first substrate having, on a side thereof, a first recording stack L_0 comprising a recordable type L_0 recording layer comprising a dye, and formed in a first L_0 guide groove, and a first reflective layer present between the L_0 recording layer and the first substrate;

a second substrate having, on a side thereof, a second recording stack L_1 comprising a recordable type L_1 recording layer, said second recording stack being at a position closer to the entrance face than the L_0 recording stack and formed in a second L_1 guide groove; and

a transparent spacer layer sandwiched between the first and second recording stacks, said transparent spacer layer having a thickness substantially larger than the depth of focus of the focused radiation beam,

characterized in that the first L_0 guide groove has a depth $G_{L0} <$ 100 nm.

2. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein G_{L0} < 80 nm and the first L_0 guide groove has a full half maximum width W_{L0}< 350 nm.

3. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein 25 nm < G_{L0} < 40 nm and the first reflective layer comprises a metal and has a thickness > 50 nm.

4. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein the recordable type L_0 recording layer has a thickness between 70 nm and 150 nm measured on the land portion of the guide groove.

5. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein said multi-stack optical data storage medium further comprises a dielectric layer present at a side of the L_0 recording layer opposite from the side where the first reflective layer is present.

6. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 5, wherein the dielectric layer has a thickness in the range of 5 nm - 120 nm.

7. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein said multi-stack optical data storage medium further comprises a second reflective layer comprising a metal present at a side of the L_0 recording layer opposite from the side where the first reflective layer is present.

8. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 7, wherein the second reflective layer has a thickness in the range of 5 nm -15 nm.

9. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 7, wherein the second reflective layer mainly comprises a metal selected from the group of Ag, Au, Cu, Al.

10. (Previously Presented) The multi-stack optical data storage medium as claimed in claim 1, wherein the effective reflection level of the stacks is at least 0.18 at a radiation beam wavelength of approximately 655 nm.

11. (Previously Presented) Use of an optical data storage medium as claimed in claim 1 for multi stack recording with a reflectivity level of the first recording stack L_0 as such of at least 0.5 and modulation of recorded marks in the L_0 recording layer of at least 0.6 at a radiation beam wavelength of approximately 655 nm.